

Claims:

What is claimed is:

- 5 1. A system for high availability clustering, comprising:
 a computer that allows a user or application to access a set of resources
 of various resource types, said resources available at said computer or at
 another computer;
 a cluster server that operates at said computer and that allows access to
10 said set of resources;
 a resource interface provided by said cluster server and that allows the
 cluster server to communicate with said set of resources via a plurality of plugins
 into said resource interface, wherein each resource type is associated with a
 particular plugin, and wherein each resource of a particular type at said computer
15 communicates with the cluster server via the particular plugin associated with that
 resource type;
 wherein additional plugins may be included in the resource interface for
 other resource types; and,
 wherein the system can be extended by adding additional computers with
20 cluster servers and resource interfaces operating thereon.
2. The system of claim 1 wherein each of said cluster servers includes a
 heartbeat interface that provides heartbeat information to other cluster servers
 at said other application servers.
- 25 3. The system of claim 1 wherein the system is Java-based.

4. The system of claim 3 wherein the system includes a JNDI interface that provides an interface between the cluster server and a JNDI-compliant database.
- 5 5. The system of claim 1 wherein the system includes a cluster administration utility for accessing and administering the cluster server using remote method invocation calls.
6. The system of claim 1 wherein each resource has a resource type associated with it.
- 10 7. The system of claim 6 wherein resources are the object instances of their respective resource types.
8. The system of claim 1 wherein a resource is any of a computer, internet
15 protocol address, disk, database, or file system or application.
9. The system of claim 1 wherein the cluster server defines resource groups that includes clusters of resources.
- 20 10. The system of claim 1 wherein the plugins include a WebLogic plugin.
11. The system of claim 1 wherein the plugins include a Tuxedo plugin.
12. A method for providing a high availability clustering framework system,
25 comprising the steps of:
allowing a user or application to access, via a computer and a cluster server operating thereon, a set of resources of various resource types, said resources being available at said computer or at another computer;

providing a resource interface at said cluster server that allows the cluster server to communicate with said set of resources via a plurality of plugins into said resource interface, wherein each type of resource within said set of resources is associated with a particular plugin, and wherein each resource of a particular type communicates with the cluster server via the particular plugin associated with that resource type;

wherein additional plugins may be included in the resource interface for other resource types; and,

wherein the system can be extended by adding additional computers with cluster servers and resource interfaces operating thereon.

13. The method of claim 12 wherein said cluster server includes a heartbeat interface provides heartbeat information to other cluster servers at said other application servers.

14. The method of claim 12 wherein the system is Java-based.

15. The method of claim 14 wherein the system includes a JNDI interface that provides an interface between the cluster server and a JNDI-compliant database.

16. The method of claim 12 wherein the system includes a cluster administration utility for accessing and administering the cluster server using remote method invocation calls.

17. The method of claim 12 wherein each resources has a resource type associated with it.

18. The method of claim 17 wherein resources are the object instances of their respective resource types.
19. The method of claim 12 wherein a resource is any of a computer, ip address, disk, database, or file system or application.
20. The method of claim 12 wherein the cluster server allows for clustering resources within a resource group.
21. The method of claim 12 wherein the plugins include a WebLogic plugin.
22. The method of claim 12 wherein the plugins include a Tuxedo plugin.
23. A system for providing resource groups in a cluster comprising:
a cluster server that provides access to resources at an application server, wherein said application server includes a plurality of resources and wherein each of said resources has a resource type associated with it;
a plurality of resource groups accessible via said cluster server, each of which resources group includes a number of associated resources; and,
a resource interface which allows the cluster server to talk to a plurality of plugins, wherein said plugins interface with a plurality of application servers to support a high availability framework between the cluster server and said application servers.
24. A method for providing resource groups in a cluster comprising:
accessing a cluster server which includes a plurality of resources accessible thereupon wherein each of said resources has a resource type associated with it;

defining a plurality of resource groups accessible via said cluster server,
each of which resources group includes a number of associated resources; and,
using a resource interface to communicate with a plurality of plugins,
which plugins in turn interface with a plurality of other application servers to
5 support a high availability framework between the cluster server and said other
application servers.

25. A system for high availability clustering, comprising:

a plurality of computers that allow a user or application to access a set of
10 application servers or application server instances, said application servers
being of various types and operating on said plurality of computers;

a cluster server that operates on each of said computers and that allows
access to the set of application servers on that computer;

a resource interface provided by said cluster server on each computer
15 that allows the cluster server to communicate with the set of application servers
on that computer via a plurality of plugins into said resource interface, wherein
each type of application server is associated with a particular plugin, and wherein
each application server of a particular type communicates with the cluster server
via the particular plugin associated with that application server type; and,

20 wherein additional plugins may be included in the resource interface for
other application server types.

26. A method for high availability clustering, comprising:

a plurality of computers that allow a user or application to access a set of
25 application servers or application server instances, said application servers
being of various types and operating on said plurality of computers;

a cluster server that operates on each of said computers and that allows
access to the set of application servers on that computer;

a resource interface provided by said cluster server on each computer that allows the cluster server to communicate with the set of application servers on that computer via a plurality of plugins into said resource interface, wherein each type of application server is associated with a particular plugin, and wherein
5 each application server of a particular type communicates with the cluster server via the particular plugin associated with that application server type; and,
wherein additional plugins may be included in the resource interface for other application server types.